

REMARKS/ARGUMENTS

The claims are 7 and 9-13. Claims 7 and 9-13 have been amended to better define the invention and claim 8 has been canceled. Claim 9 has also been amended to depend on claim 7. Support for the amendments may be found, inter alia, in the disclosure at Page 2, last paragraph, and Page 3, last paragraph. Reconsideration is expressly requested.

Claims 7 and 10-11 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Morgan et al.* U.S. Patent No. 5,379,237 in view of *Takada* U.S. Patent No. 6,266,983. The remaining claims 8-9 and 12-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Morgan et al.* and *Takada* in view of *Hoffman et al.* U.S. Patent No. 3,673,493. Essentially, the Examiner's position was that *Morgan et al.* discloses the method recited in the claims except for the use of ultrasonic testing and/or inductive testing which is said to be taught by *Takada*. *Hoffman et al* is cited as teaching the limitations of claims 8-9 and 12-13.

This rejection is respectfully traversed.

As set forth in claim 7, as amended, Applicant's invention provides a method for marking material defects in and on rod-shaped rolled material in which the defects are detected both by an inside measurement (ultrasound test) and an outside measurement (inductive measurement). In addition, in accordance with Applicant's method, the defect detection has already taken place when the product has not yet been rolled down to its final dimensions. In other words, the defects can be detected at a location at which the initial product has not yet been rolled out to such a point that the existing defects could be "overlooked". Nonetheless, the detected defects are marked on the finished part, by type and position in the finished part, directly subsequent to the rolling process, or subsequent to the cutting process on the cooling bed or to customer length.

The cropping that is performed before the final deformation (cutting of the unusable head of the strand), the deformation of the strand, and the cooling of the strand that is carried out, if necessary, for the thermomechanical rolling, between the inside test and the outside test, require appropriate conversion calculations of the position of the defects found by means of the inside test, with reference to the final dimensions. This

feature is particularly important in view of the background that various and clearly different final dimensions can be rolled, starting from an intermediate dimension.

In other words, a defect found early in the rolling process is changed in its dimensions by being rolled down, and this change must, of course, be taken into consideration in the final marking.

The signal height of the defects determined by the inside test must be adapted to a corrected level, in accordance with the end deformation currently set, and this level results from the final dimension, in each instance. The inside test is carried out on an intermediate dimension of the strand, from which different final dimensions can be rolled. The important thing is to anticipate the inclusion size that results from the deformation. The final deformation of the strand results in a lengthening and narrowing (height and width) of the inclusions (defects), which is essential when using a so-called equivalent circular disk reflector as the basis for setting an appropriate

test tolerance, namely a flat-bottom dead-end bore, in which the flat bottom serves as a reference for calibrating the ultrasound test.

Such problems are not addressed in any of *Morgan et al.*, *Takada et al.* or *Hoffman et al.* Although these patents may have some similarities with the method according to claim 7, in that defects are detected during the production process, the location and the size of the defect are determined, and a marking is applied at a calculated location, in each of these patents, as a rule, products that are already finished (even if they are still hot) are involved, which are tested in a final stage, where the problems discussed above do not play any role.

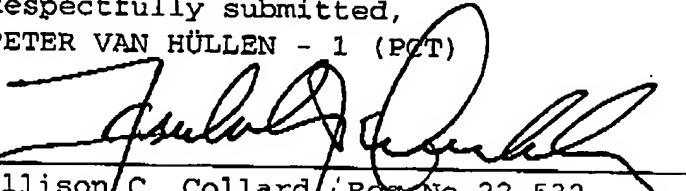
Accordingly, it is respectfully submitted that claim 7, as amended, and dependent claims 9-13 are patentable over the cited references.

In summary, claims 7 and 9-13 have been amended and claim 8 has been canceled. In view of the foregoing, it is respectfully

requested that the claims be allowed and that this case be passed to issue.

Respectfully submitted,
PETER VAN HULLEN - 1 (PCT)

COLLARD & ROE, P.C.
1077 Northern Boulevard
Roslyn, New York 11576
(516) 365-9802


Allison C. Collard, Reg.No.22,532
Edward R. Freedman, Reg.No.26,048
Frederick J. Dorchak, Reg.No.29,298
Attorneys for Applicant

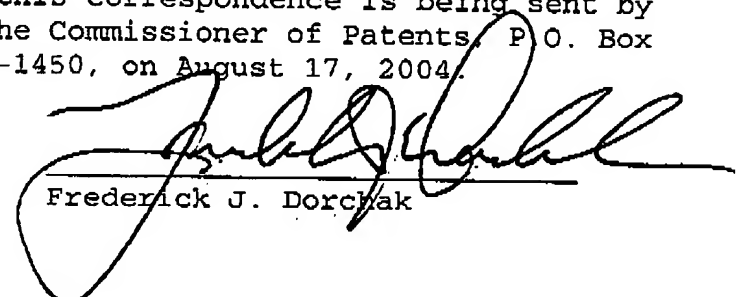
FJD:jc

Enclosure: Copy of a Petition for Extension of Time

CERTIFICATE OF FACSIMILE TRANSMISSION

Fax No. 703-746-7239

I hereby certify that this correspondence is being sent by facsimile-transmission to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 17, 2004.


Frederick J. Dorchak